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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/598,261

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Josephus Christiaan Maria Hendrix

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510

EXAMINER

SNYDER, ZACHARY J

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/598,261	<b>Applicant(s)</b> HENDRICX ET AL.	
	<b>Examiner</b> Zachary Snyder	<b>Art Unit</b> 2889	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 August 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>4/25/2007</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Claim Objections***

Claims 3 and 5 are objected to because of the following informalities:

Commas are present where periods should be in the percentages containing decimal points.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-6 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 7,268,495 B2 to Rintamaki.

In regard to claim 1, Rintamaki discloses in figure 1 a metal halide lamp (lamp 10, COL. 3, LINE 42) suitable as projection lamp, for instance as a vehicle headlamp comprising

a discharge vessel (discharge vessel 12, COL. 3, LINE 43) surrounded by an outer envelope (outer bulb 30, COL. 3, LINE 50) with clearance and having a ceramic wall (discharge vessel 12 having wall 14 formed of a ceramic, COL. 3, LINE 43-44) which encloses a discharge

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space filled with a filling comprising an inert gas, such as xenon (Xe) (fill material is xenon, COL. 4, LINE 16-18), and

an ionizable salt (salt mixture, COL. 2, LINES 10-13), wherein in

said discharge space two electrodes (electrodes 18, 20, COL. 3, LINE 61) are arranged whose tips (tips 38, 40, COL. 3, LINE 62) have a mutual interspacing so as to define a discharge path between them (shown in figure 2), characterized in that

said ionizable salt comprises NaI, TII,  $\text{CaI}_2$  and  $\text{XI}_3$ , wherein X is selected from the group comprising rare earth metals (shown in table 1 the halide is composed of NaI, TII,  $\text{CaI}_2$ , and  $\text{CeI}_3$  in COL. 9).

In regard to claim 2, Rintamaki discloses the limitations of claim 1 and that is selected from the group comprising Ce, Pr, Lu, Nd (shown in table 1 of COL. 9 to be Ce).

In regard to claim 3, Rintamaki discloses the limitations of claim 1 and that X is Ce and wherein the molar percentage ratio  $\text{CeI}_3/(\text{NaI}+\text{TII}+\text{CaI}_2+\text{CeI}_3)$  lies between 0 and 10%, in particular between 0.5 and 7%, more in particular between 1 and 6 (Table 1, Run 2, the Rare earth halide is  $\text{CeI}_3$  and it has a molar percentage of 4.6).

In regard to claim 4, Rintamaki discloses the limitations of claim 1 and that X is Ce and wherein the molar percentage ratio  $\text{CaI}_2/(\text{NaI}+\text{TII}+\text{CaI}_2+\text{CeI}_3)$  lies between 20 and 90%, in particular between 35 and 85%, more in particular between 45 and 80% (Table 1, Run 2, the Rare earth halide is  $\text{CeI}_3$  and the molar percentage of  $\text{CaI}_2$  is 24.3).

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In regard to claim 5, Rintamaki discloses the limitations of claim 1 and that the amount of NaI, TII, CaI<sub>2</sub> and XI<sub>n</sub> lies between 0.005 and 0.5 g/cm.<sup>3</sup>, in particular between 0.025 and 0.3 g/cm<sup>3</sup>.

The volume of the arc tube in figure 2 is roughly the volume of a cylinder with a diameter of 5.8 mm and a length of 7.6 mm (COL. 9, LINES 10-13). Therefore the volume is ~200.69624 mm<sup>3</sup>. The fill is ~5mg (COL. 9, LINE 13), so the amount of the salt is 5 mg / 200.7 mm<sup>3</sup> which is about 0.025 g/cm<sup>3</sup>.

In regard to claim 6, Rintamaki discloses the limitations of claim 1 and that the filling comprises Hg (COL. 6, LINE 3, the fill gas includes Hg).

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. PG Publication 2002/0185973 A1 to Jackson et al.

In regard to claim 1, Jackson discloses a metal halide lamp (metal halide lamp, para 35) suitable as projection lamp, for instance as a vehicle headlamp comprising

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a discharge vessel (arc tube 20, para 35) surrounded by an outer envelope (outer envelope 10, para 35) with clearance and having a ceramic wall (ceramic metal halide discharge lamp, para 35) which encloses a discharge space filled with a filling comprising an inert gas, such as xenon (Xe) (fill gas is xenon, para 40), and

an ionizable salt (salt, para 40), wherein in

said discharge space two electrodes (electrodes 30, 40, para 37) are arranged whose tips have a mutual interspacing so as to define a discharge path between them (shown in figure 9), characterized in that

said ionizable salt comprises NaI, TlI, CaI<sub>2</sub> and XI<sub>3</sub>, wherein X is selected from the group comprising rare earth metals (salt is NaI, TlI, CaI<sub>2</sub>, and HoI<sub>3</sub>, TmI<sub>3</sub>, and DyI<sub>3</sub>, Holmium, Thulium, and Dysprosium are all rare earth metals).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 7,268,495 B2 to Rintamaki.

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In regard to claim 7, Rintamaki discloses the limitations of claim 1 but does not disclose that the lamp could be used as projection lamp, in particular in a vehicle headlamp.

It would have been obvious to one of ordinary skill in the art at the time the invention was made that the lamp disclosed by Rintamaki would be an excellent vehicle headlamp because of its high efficiency, good color rendering, and operates at high or lower power with both of the previous qualities. Metal halide lamps being used as vehicle headlamps is known in the art and one of ordinary skill in the art would see that Rintamaki's disclosed halide lamp would be suited to such an intended use.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. PG Publication 2002/0185973 A1 to Jackson et al.

In regard to claim 7, Jackson discloses the limitations of claim 1 but does not disclose that the lamp could be used as projection lamp, in particular in a vehicle headlamp.

It would have been obvious to one of ordinary skill in the art at the time the invention was made that the lamp disclosed by Jackson would be an excellent vehicle headlamp because of its long life, high efficiency, and use in large light applications. Metal halide lamps being used as vehicle headlamps is known in the art and one of ordinary skill in the art would see that Jackson's disclosed halide lamp would be suited to such an intended use.

### ***Conclusion***

The art made of record and not relied upon is considered pertinent to applicant's disclosure.

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U.S. Patent 7,245,075 B2 to Chen et al.

In general, the invention reads on some of the applicant's claims and claims similar subject matter to applicant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary Snyder whose telephone number is (571)270-5291. The examiner can normally be reached on Monday through Thursday, 7:30AM to 6PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Toan Ton can be reached on (571)272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Karabi Guharay/  
Primary Examiner, Art Unit 2889

/Zachary Snyder/  
Examiner, Art Unit 2889



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